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Fall 2010

SKYWARN

NATIONAL WEATHER SERVICE - PORTLAND, OREGON

Weather Spotlight

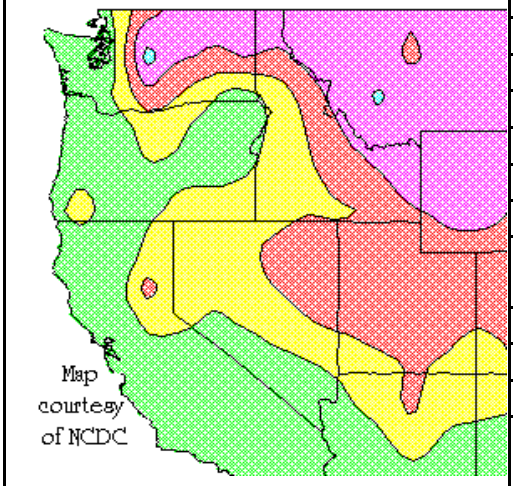
The Pacific NW Spotter Newsletter

White Christmas?

Better Bet on a Green Christmas

About this time of the year, people start wondering, *"Will it be a White Christmas?"* Well, generally speaking, don't count on it.

In a normal year:



Chance of a White Christmas	
Astoria	3 %
Eugene	6 %
Medford	3 %
North Bend	0 %
Pendleton	13 %
Portland Airport	1 %
Portland Downtown	4 %
Redmond	20 %
Salem	3 %
Sexton Summit	45 %
Government Camp	72 %
Detroit Lake	25 %
Seattle	7 %
Stampede Pass	100 %
Boise	30 %

Map and percentages courtesy of the NOAA's National Climatic Data Center

Even though this year odds are good that the Pacific Northwest will be wetter than normal, it appears that the temperatures are not as fortunate. In most strong La Niña events, temperatures are not as cool as usual, mainly due to more clouds. This fall and early winter, the expected increase in cloud cover will keep overnight temperatures from dropping as low as they normally would under clear skies. As a result, temperatures will likely be more moderate, which is not a good sign for low elevation snow. On the other hand, there generally are no big temperature swings between La Niña and non-La Niña winters. So, snow in the Cascades is a good bet. In fact, it appears that snow should begin piling up in the Cascades by mid to late November, and could be above normal for December.

So, if you are wanting to go sledding on Christmas morning, you'll need to head for the Cascades. It is very unlikely that there be any snow below 1500 feet elevation this year.

Inside this issue:

TRIVIA CORNER

What is the coldest temperature possible?

(answer on page 5)

Winter 2010-2011 Outlook: La Niña Has Returned!

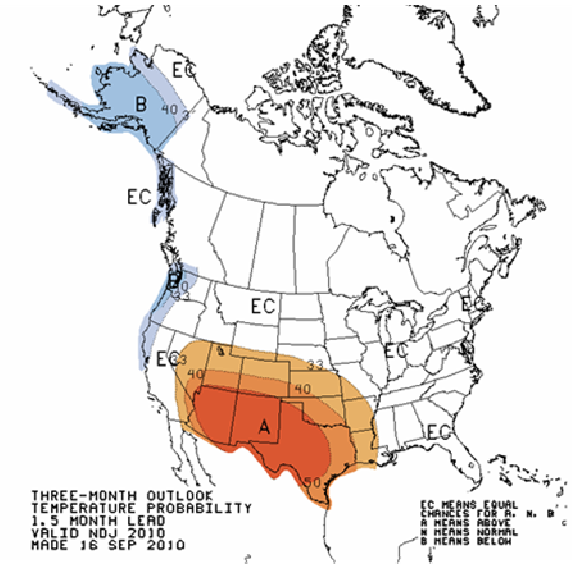
By now, you are probably aware that La Niña conditions are expected this winter.
But what does that really mean?

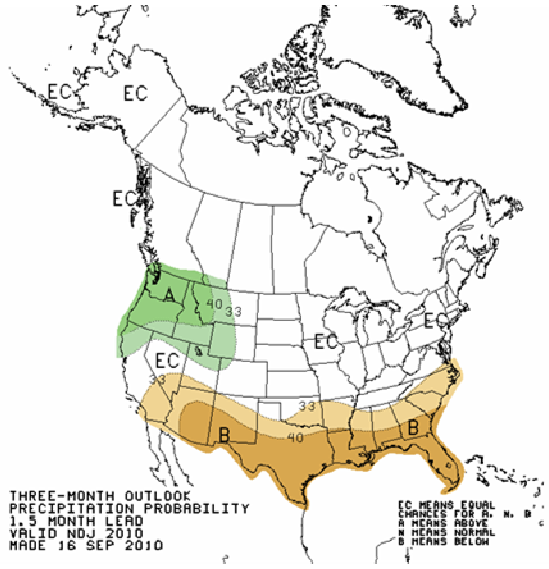
First of all, La Niña is defined by cooler than normal sea-surface temperatures across the central and eastern tropical Pacific Ocean. It is the opposite condition of El Niño, when sea surface temperatures there are warmer than normal. Both are part of a naturally occurring climate cycle. So why is this important? Minor changes in ocean temperatures can have a big impact on weather patterns.

The presence of La Niña conditions can affect the pattern of the winds aloft. The wind pattern aloft, including the jet stream, plays a significant role in determining the track of winter storms. As the observed effects on the wind patterns can vary with each La Niña event, so too the effect on the weather for each La Niña episode will be unique. But there are some tendencies that can let us at least guess at what the coming winter might be like.

In the Pacific Northwest, late fall and early winter tend to be wetter than normal during La Niña, with historically some of the biggest increases in precipitation in occurring around November. La Niña winters are typically colder than normal in the Pacific Northwest. In regards to snowfall, the Cascades tend to be receive more snow than normal, while in the lowlands of Northwest Oregon and Southwest Washington, La Niña winters tend to average near normal snowfall. Of course, "normal" snowfall can vary considerably from year to year, but it does suggest that low elevation snow in whatever amount is likely to occur at some point in the winter.

These tendencies are reflected in the September forecasts from the Climate Prediction Center for the coming fall and winter, when increased chances for below normal temperatures and above normal precipitation are forecast. You can find more information on La Niña, and long range outlooks for this winter and beyond on the Climate Prediction Center's website at www.cpc.noaa.gov

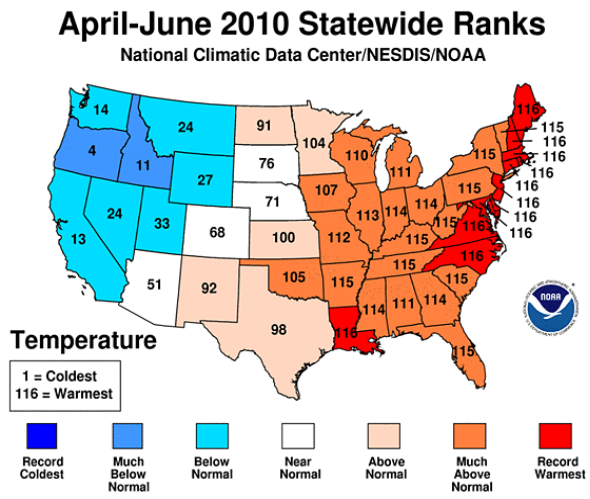




Article submitted by: David Elson, Lead Forecaster and Climate Focal Point, NWS Portland

Summer 2010: Why Were We So Cool?

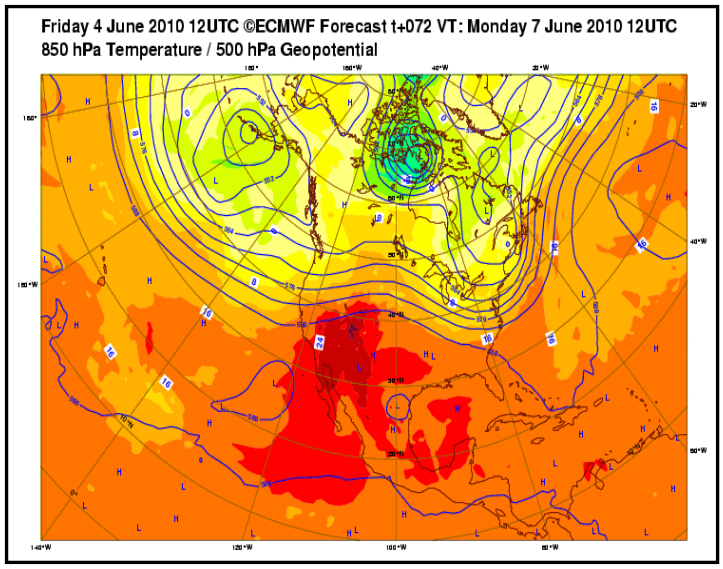
Why Was the Past Summer So Cool?



The winter of 2009-10 was marked by a moderate El Niño event. This brought milder temperatures and below normal precipitation to much of the Pacific Northwest between December and March. During the spring of 2010, the mild weather continued, with many afternoon temperatures in the 60s in March and early April. However, by late April, something began to change. Temperatures continued to remain in the 50s and 60s for highs into May, and then even June. May and June were so cool that they now rank as some of the coolest months for locations west of the Cascades. In fact, April to June 2010 ranks as the 4th coolest April-June period on record for Oregon, while similar trends can be found across the rest of the western United States.

But why was it so cool? Research has found that following moderate or stronger El Niño events, there appears residual troughing over the northeast Pacific Ocean. This trough keeps the storm track moving off the Pacific into the Pacific Northwest. This allows continual fronts to move into the region, with plenty of clouds and occasional precipitation. Normally, this trough weakens by late April, allowing stronger high pressure cells to develop over the northeast Pacific. A general warming and drying trend develops by early to mid-June as the storm track lifts northward, sending most of the precipitation into British Columbia.

However, in late April 2010, lasting into mid-June 2010, this did not occur. The persistent trough pattern over the northeast Pacific maintained generous onshore flow, keeping temperatures down across much of the region from the Cascades westward. Even though the trough did eventually weaken in early July, it was still present well into August. The end result was an overall mild summer, with only a few hot spells. Typical moderate offshore flow that brings very warm and dry conditions to areas west of the Cascades did not occur as much as normally expected.



As La Niña conditions continue to develop late in the summer and this fall, this pattern of troughing over the north Pacific will likely continue the trend of mild weather into the fall. The normal storm track for October and November brings decent fronts into the region. However, with a strong La Niña, this storm track will likely bring stronger and wetter fronts into the Pacific Northwest.

Article submitted by: Clinton Rockey, Journey Forecaster and Climate Focal Point, NWS Portland

Getting Ready for Winter…

A few things you can do now before winter weather slams into the Pacific Northwest.

Reminder on How to Properly Measure Snow

Measuring snow can be easy when you follow a few simple steps:

1. The best surface to measure on is a 2'x2' plywood board painted white, set in a well exposed location.
2. Using a ruler or yardstick, measure snow as time allows and before melting occurs.
3. For long duration events, measure every 6 hours during the event. After the first measurement, clean off half the board. For the next measurement, you can then measure new snow, and total accumulated snow.
4. You may need to take the average of 3 representative measurements.
5. Don't be surprised if your 6-hourly observations don't add up to the total. Remember, snow compacts under the weight of new fallen snow.

Important Reminders:

1. Measure snow on surfaces that don't retain heat
2. Avoid pavement and bare ground
3. Avoid areas prone to drifting

Visually Estimating Wind Speed …using the Beaufort Wind Scale

During winter storms, one of the biggest concerns is the strength of the wind, and the damage it can cause. Any information you can provide on wind speeds in your neighborhood is always helpful. And you can help, even if you don't have an anemometer!

Here, a table has been provided to help you estimate wind speeds based on what you see out your window or down your street. For brevity, only the upper half of the Beaufort Wind Scale has been provided.

Wind Speed	Visual Clues and Damage Effects
25 to 31 mph	Large branches in continuous motion. Umbrellas used with difficulty.
32 to 38 mph	Whole trees in motion. Inconvenience felt when walking against wind.
39 to 46 mph	Wind breaks twigs and small branches. Wind generally impedes walking.
47 to 54 mph	Structural damage, such as roofing tiles blown off and television antennas damaged. Small twigs and broken tree branches.
55 to 63 mph	Considerable structural damage, especially on roofs. Small trees blown over or uprooted.
64 to 75 mph	Widespread damage. Larger trees blown over and/or uprooted.
over 75 mph	Severe and extensive damage. Roofs can be peeled off. Trees uprooted. Small mobile homes overturned.

iNWS - Interactive NWS: Bringing the Weather to YOU!

Interactive NWS (iNWS) is a new mobile and desktop innovation of the National Weather Service. iNWS strives to fulfill the National Weather Service's mission of protecting life and property by using new technology to reach out to our customers.

Would you like to be instantly notified by email or text message when the National Weather Service issues a Watch, Warning, or Advisory that may affect you? Would you like to browse radar and satellite imagery, observations, and point forecasts all from a simple map interface on your mobile device? Then iNWS is for you!

Here are the services currently being offered:

- **iNWS Alerts** *user customizable sms and e-mail alerts*
- **AHPS Mobile** *mobile hydrograph and alerting system*
- **iNWS Mobile** *nws blackberry/java cell phone application*
- **iCWSU** *aviation weather mobile web page*
- **iNWS Mobile Web** *nws mobile weather website*

For more information, and to register for this experimental service, please visit:

http://inws.wrh.noaa.gov/

TRIVIA CORNER

On Earth, air temperatures around –130°F are found near the South Pole. Absolute zero, the coldest it can get anywhere, is –460°F (-273.16°C).

***Source:** The Handy Weather Answer Book, by Walter A. Lyons, PH.D.—1997*

Have you tried eSpotter?

eSpotter is a web-based spotter form available 24/7, all year round. Current spotters can register online and must be approved to use the system. It is available to any spotter who has taken a Spotter Training Class in the last three years, and names are purged from the system after three years if a refresher class is not taken. Once you are registered, you may submit a spotter report via the online system, and your report will instantly alarm on our computer system. To help us recognize you, please include your spotter number somewhere in your report.

For more information, and to register for eSpotter, please visit:

http://espotter.weather.gov

eSpotter
Online Weather Reporting System

We also appreciate old-fashioned phone calls!

1-800-XXX-XXXX

(unlisted number—do not give out)

Fall Spotter Training Sessions

If you are interested in brushing up on your weather spotter training, or would like to introduce a friend to the SKYWARN Spotter program, please plan to attend one of the following classes:*

Tuesday, October 19th
Astoria, OR @ 7 pm
Boyington Building

857 Commercial (9th and Commercial)

Astoria, OR 97103

Tuesday, October 26th
Cathlamet, WA @ 7 pm
River Street Building

25 River Street

Cathlamet, WA 98612

Tuesday, November 2nd
Manzanita, OR @ 7 pm
Manzanita City Hall

543 Laneda Avenue

Manzanita, OR 97130

Wednesday, November 3rd
Philomath, OR @ 7 pm
Benton County Historical Society and Museum

1101 Main Street

Philomath, OR 97370

**Training sessions usually last no longer than 8:30 pm.*

We would love to see you there!

Have other plans? Can't make one of the fall sessions?

Training sessions will be offered again in the Spring!

.....FUN WEATHER FACTS.....

How can crickets be used to determine the temperature?

Count the number of cricket chirps in 14 seconds and then add 40.

The number will be very close to the air temperature. An alternate approach is to note that they chirp 72 times per minute at 60°F. For every additional four chirps, add a degree to 60°F, and for every four chirps less, subtract a degree from 60°F.

Source: ***The Handy Weather Answer Book, by Walter A. Lyons, PH.D.—1997***

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Visit Us Online!
www.weather.gov/portland

Winter Weather Awareness Week

October 17th—23rd, 2010

This is an excellent time for all individuals, families, businesses, schools, radio and television stations to review their winter weather preparedness plans.
Visit http://www.wrh.noaa.gov/pqr/winterawareweek.php for more information.

Winter in the Pacific Northwest can bring a hazardous mix of conditions. All areas of the Pacific Northwest have experienced nearly every type of winter weather possible, from blizzards to ice, from flooding rains to biting cold. ***Are you prepared for winter weather to hit your neck of the woods?***

To help our communities learn more about these dangers, NOAA's National Weather Service will issue the following Public Information Statements throughout the week to give safety information, and help you know how to respond when severe weather threatens.

Topics to look forward to include:

Sunday, October 17th— Introduction

Monday, October 18th—Winter Weather Safety

Tuesday, October 19th—Outlooks/Watches/Warnings/ Advisories

Wednesday, October 20th—Snow Storms/Blizzards/Ice Storms/Wind Chill

Thursday, October 21st—Floods

Friday, October 22nd—Wind Storms

Saturday, October 23rd—Summary